Grade 8 Rational Numbers Worksheets

Grade 8 Maths Rational Number Multiple Choice Questions (MCQs)

1. **Associative property is not followed in ……………… .**
(a) whole numbers
(b) integers
(c) natural numbers
(d) none of these

2. **……………………… is the identity for the addition of rational numbers.**
(a) 1
(b) 0
(c) -1
(d) $\frac{1}{2}$

3. **………………… is the multiplicative identity for rational numbers.**
(a) 1
(b) 0
(c) -1
(d) $\frac{1}{2}$

4. **The additive inverse of $\frac{7}{5}$ is:**
(a) 1
(b) 0
(c) $-\frac{7}{5}$
(d) $\frac{7}{5}$

5. **What number should be added to $\frac{7}{12}$ to get $\frac{4}{15}$?**
(a) $-\frac{19}{60}$
(b) $-\frac{11}{30}$
(c) $\frac{51}{60}$
(d) $\frac{1}{20}$

6. **What number should be subtracted from $-\frac{3}{5}$ to get -2?**
(a) $-\frac{7}{5}$
(b) $-\frac{13}{5}$
(c) $\frac{13}{5}$
(d) $\frac{7}{5}$

7. Which of the rational numbers $\dfrac{-5}{16}, \dfrac{-13}{24}, \dfrac{3}{-4}, \dfrac{7}{-12}$ **is the smallest?**

(a) $\frac{-5}{16}$

(b) $\frac{-13}{24}$

(c) $\frac{3}{-4}$

(d) $\frac{7}{-12}$

8. Rational number $\frac{3}{40}$ is equal to:

(a) 0.75

(b) 0.12

(c) 0.012

(d) 0.075

9. A rational number between $\frac{3}{5}$ and $\frac{4}{5}$ is

(a) $\frac{7}{5}$

(b) $\frac{7}{10}$

(c) $\frac{3}{10}$

(d) $\frac{4}{10}$

10. Find x such that $\frac{3}{5} = \frac{x}{-25}$

(a) -5

(b) -15

(c) -15

(d) none of these

11. Find x such that $\frac{-48}{x}$ = 2

(a) 24

(b) -12

(c) -24

(d) none of these

12. Find x such that $\frac{-3}{8}$ and $\frac{x}{-24}$ are equivalent rational numbers.

(a) 3

(b) 9

(c) 8

(d) none of these

13. Find the value of $\frac{3}{-5} \times \frac{-5}{-3}$

(a) -1

(b) 0

(c) 1

(d) none of these

14. The equivalent rational number of $\frac{-6}{5}$ is

(a) $\frac{-3}{5}$

(b) $\frac{12}{10}$

(c) $\frac{-12}{10}$

(d) none of these

15. Fill in the boxes with the correct symbol: $\frac{5}{-11} \square \frac{-5}{11}$

(a) >

(b) <

(c) =

(d) none of these

16. Fill in the boxes with the correct symbol: $\frac{1}{-3} \square \frac{-1}{4}$

(a) >

(b) <

(c) =

(d) none of these

17. Rewrite the rational number $\frac{-18}{48}$ in the simplest form.

(a) $\frac{-9}{24}$

(b) $\frac{-3}{8}$

(c) $\frac{3}{8}$

(d) none of these

18. Rewrite the rational number $\frac{44}{-72}$ in the simplest form

(a) $\frac{22}{-36}$

(b) $\frac{11}{-18}$

(c) $\frac{11}{18}$

(d) none of these

19. Write the next rational number in the

pattern: $\frac{-3}{5}, \frac{-6}{10}, \frac{-9}{15}, \frac{-12}{20}, \ldots\ldots\ldots\ldots$

(a) $\frac{12}{25}$

(b) $\frac{15}{25}$

(c) $\frac{-15}{25}$

(d) none of these

20. Write the next rational number in the pattern:

$\frac{-1}{6}, \frac{2}{-12}, \frac{3}{-18}, \frac{4}{-24}, \ldots\ldots\ldots\ldots$

(a) $\frac{-5}{-30}$

(b) $\frac{5}{-30}$

(c) $\frac{4}{-30}$

(d) none of these

Class 8 Maths Rational Number Fill In The Blanks

1. Zero has ………………… reciprocal.
2. The numbers ……………….. and ……………….. are their own reciprocals.
3. The reciprocal of -5 is …………………… .
4. Reciprocal of $\frac{1}{x}$, where x ≠ 0 is ………………. .
5. The product of two rational number is always a ……………. .
6. The reciprocal of a positive rational number is ……………… .
7. The additive inverse of $\frac{-a}{b}$ is ………………… .
8. Reciprocal of $\frac{-3}{4}$ is ……………… .
9. The reciprocal of a negative rational number is ……………… rational number.
10. The rational number ……………… is equal to its negative.

Class 8 Maths Rational Number Very Short Answer Type Questions

1. What is the additive inverse of $\frac{-7}{11}$?
2. What is the multiplicative inverse of $2\frac{3}{11} \times \frac{1}{3}$?
3. Which number lies between $\frac{1}{5}$ and $\frac{1}{4}$?
4. Find the product of $\frac{3}{8}$ and the reciprocal of $\frac{-5}{17}$.
5. A tailor needs $\left(\frac{9}{10}\right)^{th}$ of a metre of cloth to stitch a blouse. It he wants to stitch 100 blouses how much cloth will be needed?
6. The sum of the additive inverse and multiplicative inverse of 3 is ……………… .

Class 8 Maths Rational Number Short Answer Type Questions

1. The number which is subtracted from $\frac{29}{13}$ to get $\frac{-5}{7}$ is ……………… .
2. The value of x for which the two rational numbers $\frac{4}{9}, \frac{x}{54}$ are equivalent.
3. $\frac{5}{6}$ of all the money in Salma's bank account is ₹ 55,000. How much money does Salma have in her bank account?
4. Arrange the number $\frac{1}{4}, \frac{13}{16}$ and $\frac{5}{8}$ in the ascending order.

Class 8 Maths Rational Number Long Answer Type Questions

1. Simplify:

$$\frac{5}{8} + \frac{9}{2} + \left(\frac{-4}{5}\right) + \frac{7}{8} + \left(\frac{-5}{2}\right) + \frac{7}{5}$$

2. The cost of $3\frac{1}{2}$ kg of wheat is ₹ 63. How much will $1\frac{1}{4}$ kg of wheat cost?

3. Season tickets usually cost ₹ $120\frac{4}{5}$ per person. For students, they are priced at $\frac{1}{4}$ of the normal cost. How much will 6 tickets will cost for students?